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Federal Communications Commission
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**Written
Opening Statement
Of**

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**Before the
FCC *En Banc* Hearing
on
Public Safety Interoperable Communications and the
700 MHz D Block Proceeding**

**Brooklyn Borough Hall Hearing Room
209 Joralemon Street
Brooklyn, NY 11201**

July 30, 2008

Ericsson is a world-leading provider of telecommunications equipment and related services to mobile and fixed network operators globally. Over 1,000 networks in 140 countries utilize Ericsson network equipment and 40 percent of all mobile calls are made through its systems. Ericsson, with more than 70,000 employees, is one of the few companies worldwide that offers end-to-end mobile communication solutions. In addition, through its Sony Ericsson Mobile Communications joint venture, Ericsson offers a wide range of mobile devices, including those supporting multimedia applications and other services allowing feature-rich communication. The company invests heavily in research and development and actively promotes open standards and systems.

Ericsson is extensively involved in providing products and solutions that meet public safety communications needs. Ericsson offers a broad portfolio of solutions for different public safety customer segments and requirements, ranging from emergency centers and networks to mobile solutions and services. Ericsson participates in Project MESA, an international partnership producing globally-applicable technical specifications for digital mobile broadband technology for public safety and disaster response. Many public safety organizations, including police and fire departments, ambulance services, search and rescue services, and border security agencies, have taken advantage of Ericsson's public safety solutions. The company also supports global standards for public safety interoperability and broad-scale programs designed to improve public safety wireless communications. It is committed to developing and integrating public safety requirements into global commercial standards, including relevant Third Generation Partnership Project ("3GPP") standards like Long Term Evolution ("LTE") which will be

ready for deployment no later than 2009. LTE offers scalable bandwidth, with peak downlink speeds of 150Mbps and peak uplink speeds of 50 Mbps in 20 MHz channels. The use of standardized technology will facilitate supplying the public safety broadband network with Commercial Off The Shelf ("COTS") equipment, as well as services that include standardized public safety requirements.

The Commission asked in its FNPRM whether it continues to be "in the public interest to require a public/private partnership between the nationwide D Block licensee and the Public Safety Broadband Licensee for the purpose of creating a nationwide, interoperable broadband network for both commercial and public safety network services." Ericsson submits that this partnership remains in the public interest and "would facilitate access for public safety to a robust, advanced communications infrastructure and produce economies of scale inherent in a nationwide footprint." Moreover, it would enable public safety users "to take advantage of commercial, off-the-shelf technology and otherwise benefit from commercial carriers' investments in research and development of advanced wireless technologies."

For this to partnership to succeed, the Commission needs to eliminate some of the uncertainties and risks that exist under the current rules. This includes providing more details about what the D Block licensee is expected to provide — and equally important, what the D Block licensee is *not* expected to provide. It also includes providing advance guidance on the boundaries of the issues to be resolved through negotiations on the NSA, so that the PSBL and the D Block auction winner have a common understanding of what needs to be negotiated and also a reasonable basis for negotiating to resolve those issues.

As stated above, the Commission should provide details regarding the technical obligations of the D Block licensee with regard to the SWBN, rather than leaving such critical matters to negotiations after the bidding is over. Some areas include:

- **Eligible users** — The public safety broadband licensee (“PSBL”) should be allowed to provide access to its network to critical infrastructure and federal agency users during times of emergency for public safety-related communications, at its discretion, and consistent with the Network Sharing Agreement (“NSA”).
- **Technical requirements** — The Commission should provide additional details regarding the technical requirements for the shared network in advance of the auction. To the extent possible, the Commission should rely on globally standardized commercial technology that permits the use of commercial, off-the-shelf equipment.
- **Radio access network interoperability** — The Commission should require the use of a single standard air interface for the shared network. It should also address whether and how the network should be interoperable with legacy public safety voice networks.
- **Application interoperability** — The Commission should support use of an open, documented interface and standardized data structures to facilitate the exchange of data between agencies, users, applications, networks, and in a multi-vendor environment.
- **Specifications for a broadband technology platform** — Both LTE and HSPA provide an open, globally standardized platform, delivering the ability to use commercial, off-the-shelf technology from a wide variety of competitive vendors for public safety needs and commercial needs. HSPA, a 3GPP-developed, IP-based, 3G solution is globally deployed in numerous networks and already enjoys a substantial ecosystem. Because of the recent announcements by commercial carriers concerning deployment of LTE at 700 MHz, and the desire to create synergies between the adjacent commercial carriers and public safety, Ericsson in its comments provides additional detail on the features and functions that LTE, the 4G standard established by 3GPP, can provide the D block licensee and PSBL.
- **Reliability** — The Commission should revise its network reliability standard to specify reliability of radio network coverage. A technically and economically feasible standard is needed.
- **Combined use of spectrum** — Ericsson supports revising the rules to permit the pooling of the D Block spectrum with the public safety broadband spectrum for combined use. There is no operational need to segregate the spectrum, and combining it will yield greater efficiency.

- ***Robustness and hardening*** — Not all sites and facilities need to be hardened to ensure a high level of availability and meet public safety needs. Core network equipment is built to provide high availability with high reliability, and installations can be designed to be redundant as determined necessary by the D Block Operator and the PSBL. Because hardening will greatly increase costs, the Commission should provide guidance as to which sites need hardening and the type of hardening required. It should also limit the number of facilities that the PSBL can deem “critical.”
- ***Capacity, throughput, and quality*** — The Commission should leave the specification of capacity, throughput, and quality of service to the negotiated NSA, but it should make clear that any such requirements must be commercially and technically reasonable.
- ***Security and encryption*** — Commercial systems and technologies provide many levels of security from which government agencies and public safety communications can benefit. However, if the PSBL requires security features beyond the measures already provided by commercial networks, such security measures should be negotiated between the D block licensee and the PSBL and detailed in the NSA. The PSBL may also elect to incorporate additional security measures for which it would be responsible.
- ***Priority public safety access during emergencies*** — Ericsson believes priority access and preemption should be limited to serious emergencies and to the areas affected by the emergency. The PSBL should be able to assign appropriate priority levels to various classes of public safety users, as well as public safety-related critical infrastructure and federal agency users, consistent with the terms of the NSA.
- ***D Block performance requirements*** — The Commission should lengthen the D Block license term, with the interim build-out milestones extended over this term. The Commission should permit coverage supplementation, for example, by: (1) supplementation by the PSBL according to the NSA, at its expense, into areas not yet covered by the D Block licensee; (2) supplementation through the use of “boomer” cells, which provide coverage of very large rural areas through the use of high transmitter power; and (3) supplementation through the use of dual-mode satellite terminals, during the initial license term. Ericsson also supports Commission action facilitating the public-private partnership’s access to public safety towers and rights of way, which would favorably affect the scope and speed of network deployment.
- ***Relationship between the D Block licensee and the PSBL*** — The PSBL will need to interact regularly with the D Block licensee to ensure public safety needs are met. In addition, the PSBL should take a leading role in dealing with state and local agencies about siting of facilities.
- ***Negotiation of the NSA*** — The Commission should assist the D Block auction winner and the PSBL in reaching agreement on the NSA. If the parties ultimately cannot reach agreement, the Commission should exercise

its discretion to offer the next-highest bidder the opportunity to negotiate with the PSBL instead of immediately reauctioning the spectrum.

- ***D Block auction reserve price*** — The reserve price should not be set at a level which would discourage serious potential bidders. Because of the responsibilities of the D Block auction winner, the reserve should be set considerably lower than the reserve price would be for comparable spectrum without the attached obligations.
- ***Size of geographic areas*** — The Commission should ensure national interoperability and standardization. The best approach would be a single nationwide D Block license.
- ***Spectrum leasing and wholesale*** — The D Block licensee should not be required to engage in spectrum leasing or wholesaling business models, and if it chooses to do so it must nevertheless ensure that the integrity of the NSA is safeguarded.
- ***Options if the public-private partnership fails to develop*** — Given the importance of the public private partnership, the Commission should take all steps possible to make it succeed. Ericsson does not endorse splitting apart public safety and the D Block. However, if the FCC decides to auction the D-block spectrum without the public private partnership, Ericsson addresses the need for funding a suitable alternative network for public safety and some of the technical rules that would need to be amended for a stand-alone commercial D Block operator.

As the Commissioners have recognized, it would be better to have a solid source of funding for this network. Accordingly, the Commission should continue to urge the Congress and states to provide funding for the deployment, maintenance, and operation of a broadband public safety network that is nationwide in scope and fully interoperable.